1-28-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Dale Burns and Theodore Palles

Serial No.: Not yet assigned   Group Art Unit:

Filed: Herewith   Examiner:

For: **SYSTEM AND METHOD FOR EMAIL SCREENING**

Assistant Commissioner for Patents
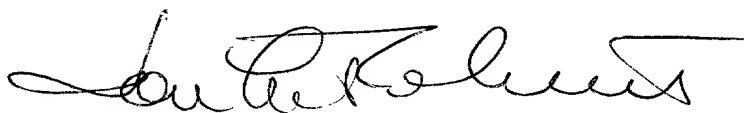Box PATENT APPLICATION
Washington, D.C. 20231

Dear Sir:

    Enclosed please find the following:

1.   Specification, abstract and claims (4 independent, 11 dependent, 15 total)(15 pages);
2.   Informal drawings (2 figures, 2 sheets);
3.   Declaration and Power of Attorney;
4.   Verified Statement Claiming Small Entity Status - Independent Inventor;
5.   One check in the amount of $345.00; and,
6.   Certificate of Express mailing.

    The Commissioner is hereby authorized to charge any fee deficiency, or credit any overpayment, to Deposit Account No. 18-1579. The Commissioner is also authorized to charge Deposit Account No. 18-1579 for any future fees connected in any way to this application. Two copies of this letter are enclosed.

    Respectfully submitted,

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January 27, 2000   Atty. Docket No. 2391

VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR	Docket Number (Optional)

Applicant or Patentee: Dale Burns & Theodore Palles

Serial or Patent No.:   Not Yet Issued

Filed or Issued: Herewith

Title: System and Method for Email Screening

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

□ the specification filed herewith with title as listed above.

☒ the application identified above.

□ the patent identified above.

I have not assigned. granted, conveyed or licensed and am under no obligation under convey or law to assign, grant, convey or license. any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that had made the invention, or to any concern which would not qualify as a business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

□ No such person, concern, or organization exists.

□ Each such person, concern or organization is listed below.

Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate.(37 CFR 128(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made an information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Dale Burns
NAME OF INVENTOR

Ted Palles
NAME OF INVENTOR

NAME OF INVENTOR

Signature of inventor

Signature of inventor

Signature of inventor

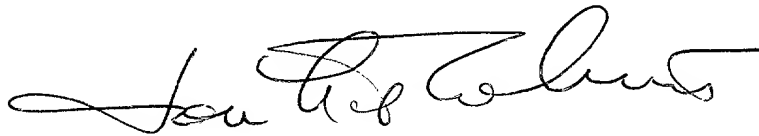JAN 24, 2000
Date

1/25/00
Date

Date

<u>CERTIFICATE OF EXPRESS MAILING</u>

Express Mail Mailing Label Number ___EL528294904US___

Date of Deposit: _____January 27, 2000_____

    I hereby certify that the patent application of Dale Burns and Theodore Palles for a **SYSTEM AND METHOD FOR EMAIL SCREENING** including the specification, abstract, and claims (4 independent,11 dependent, 15 total)(15 pages); informal drawings (2 figures,2 sheets); declaration and power of attorney; Verified Statement Claiming Small Entity status - Independent Inventor; and a check in the amount of $345.00, are being deposited with the United States Postal Service for "Express Mail" service under 37 C.F.R. § 1.10 on the date indicated above and are addressed to the Assistant Commissioner for Patents, Box Patent Application, Washington, D.C. 20231.

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1   **Title of the Invention**: System and Method for Email Screening

2   **Inventor**: Dale Burns

3   **Field of the Invention**

4   This invention related generally to sending and receipt of electronic mail over a

5   network. More particularly, the present invention is a system and method for screening

6   email for the presence of any virus and for generating revenue from the email screening

7   activity.

8   **Background**

9   It is frequently a problem that email received by an individual may contain a virus

10   which is either specifically intended to infect the machine or is inadvertently attached by

11   a known user to email being sent to a recipient. In either case, the end result is the

12   recipient having the virus infect the system. Obviously, this can lead to disastrous results.

13   Email processing for various purposes has been the subject of invention. For

14   example:

15• <u>U.S. Patent No. 5,889,943 to Ji, et al.</u> describes a method and apparatus for virus

16   detection for e-mail files. This patent describes a network of nodes separating servers

17   that perform processing functions. Particularly, the system architecture allows e-mail

18   messages to be sent to a separate server in order to be scanned. It does not deal with

19   sorting of messages to be forwarded or otherwise identifying desired from undesired

20   email.

21   <u>U.S. Patent No.5,623,600 to Ji, et al.</u> is related to the above-mentioned patent

22   ('943). This patent describes a system for scanning files on a computer network for

1   viruses. More specifically, the inventions include two methods that involve transferring

2   email messages to a separate node in order for the virus scan to be performed. One

3   embodiment provides detection from a gateway node for files sent to or from a network.

4   Each method describes the scanning function as being performed by a separate server.

5   **U.S. Patent No. 5,832,208 to Chen, et al.** describes a software program that

6   scans for and removes viruses from e-mail messages, including attached files. One

7   embodiment shows software used at the mail server of a Local Area Network (LAN) and

8   operates within the mail system. The patent discusses applications for the program in a

9   wide variety of computer architecture arrangements, including network operating systems

10   and virus detection programs. However, this method is primarily based at the e-mail

11   server. It does not deal with the sorting of email or revenue generation.

12   **U.S. Patent No. 5,901,228 to Crawford** describes a system that allows on-line

13   customers to directly access storage capability on a host system. One feature of the

14   system is that the customer may purchase virus detection capability. However, several of

15   the capabilities purchased, including virus detection require some virus-detection

16   processing to be done at the customer's computer.

17   Anti-viral services are particularly described as being executable from either a

18   virtual disk or copied onto the customer's hard drive.

19   The system described does operate when the user is off-line. The replica computer

20   can act off-line and perform functions when the customer is not connected to the system.

21   **U.S. Patent No. 5,771,354 to Crawford** is related to the above-mentioned

22   patent ('228). This patent describes an on-line system where customers use the host

1 system to perform storage and processing functions that were previously done on the

2 customer's system. Specifically, the customer connects to the provider, pays a fee, and

3 obtains the service. When the customer first contacts the provider, he must establish an

4 identifier and password. Subsequently, the customer's access is permitted with entering

5 the proper identifier and password. This service allows access by recipients of emails. It

6 does not deal with the sender of email in any way.

7   **U.S. Patent No. 5,864,683 to Boebert, et al.** describes a computer system that

8 protects a private and secure system from infiltration while a secure user is accessing a

9 wide-area access system. One embodiment describes a system where the secure user

10 connection is processed by a secure server. The secure server isolates the private and

11 wide-are access systems. The secure server is described as a non-distinguishing server

12 that automatically reroutes information packets with a certain type of header for "off-line"

13 inspection

14   As seen in several of the patents discussed above, screening e-mail messages for

15 virus infection via an off-line server is well known. While some patents address the

16 purchase of a service by a recipient to screen e-mail for viruses, recipients are charged for

17 performing the service of screening his or her e-mail for viruses.

18   These patents do not address connections that a user will make with third parties.

19 None of the patents consider any way of recouping costs from third parties (senders of

20 emails).

3

1   No other reference in the search describes a virus-screening system application

2   that allows third party users of the customer's system to be charged when communicating

3   with any user from the LAN.

4   What would be truly useful would be a system that allows emails and attachments

5   to be screened, and which provides notification to both the user that such email has

6   arrived and its potential subject matter, that allows a user to have email selectively

7   screened, that provides notification to senders that a screening activity has taken place,

8   and that makes a nominal charge to the sender for delivery of the scanned email.

9   **Summary of the Invention**

10   It is therefore an objective of the present invention to allow email to be screened

11   for viruses before the email is received by a user.

12   It is a further objective of the present invention to allow such virus screening to

13   take place at a location other than the users computer.

14   It is a further objective of the present invention to re-route email to an alternate

15   server for virus screening.

16   It is yet another objective of the present invention to be able to designate those

17   emails that are to be sent directly to a users computer after screening.

18   It is a further objective of the present invention to limit the amount of unsolicited

19   email received by a user.

20   It is a further objective of the present invention to develop revenue, with

21   permission of a user, for the delivery of unsolicited email.

4

1   It is yet another objective of the present invention to be able to designate to an

2   alternate site those emails that are not to be screened but to be sent directly to a user.

3   These and other objectives of the present invention will become apparent from a

4   review of the specification that follows.

5   The present invention is an email screening system. The invention involves all

6   email that is directed to a particular email address being rerouted to an alternate location.

7   This is accomplished by the email recipient registering his or her address with an

8   alternative location, which will be a server, of the present invention. Software that

9   resides on the recipient's machine automatically reroutes the email to this alternative

10   server.

11   At the alternative server, emails are scanned for any virus. If the email has a

12   password associated with it, indicating that it is of somewhat higher importance than an

13   un-passworded email, it is sent without delay to the recipient after it is scanned for

14   viruses and confirmed that no viruses are present.

15   In the event that the email does not have a password, a notification is sent to both

16   the intended sender and the intended recipient that the email did not include the necessary

17   password. The intended recipient is then informed of the sender name, the date of the

18   transmission, the time, the subject, and any other pertinent information that can be

19   extracted from the email, but not any attachments that may be attached to the email. In

20   this fashion, email can be scanned for viruses, but not forwarded to the intended recipient.

21   The sender of the un-passworded email is informed that for a nominal charge, the

22   intended recipient will accept the email. The nominal charge covers the cost of running

5

1   the service of the present invention. The nominal charge may then be shared by the

2   emails between the screening system and the intended recipient, or, the nominal charge is

3   simply kept by the web-based email screening system as payment for the screening

4   service it provides.

5   For certain email, the intended recipient can designate that any email from a

6   specific source be automatically accepted without being screened by the screening system

7   of the present invention.

8   The present invention is directed to a System for purchasing the service of

9   screening E-mail for viruses. A System user has screening software installed on his

10   computer. The screening software forwards all email received to an alternate server.

11   Each e-mail message is screened for viruses. If the e-mail message has a system

12   password associated with it, no charge is applied for the screening. The message with the

13   system password is then directly forwarded to the recipient. If the e-mail message does

14   not have a system password, the E-mail Screening System requires the sender to pay a fee

15   for the screening. Once no system password is found, the sender and recipient are each

16   notified of the attempted delivery and required fee. If the sender pays the fee, the E-mail

17   Screening System then delivers the message. Alternatively, the recipient can accumulate

18   charges for messages from outside the system and pay the fee. Then, users do not

19   experience delay in receiving messages.

20   **Brief Description of the Drawings**

21   Figure 1 illustrates the overall architecture of the present invention.
22
23   Figure 2 illustrates the flowchart for email screening of the present invention.
24

Detailed Description of the Invention

As noted above, the present invention is a system for screening email and generating revenue from the screening operations. Recipient computer 16 is connected to a network, preferably the Internet 14, although this is not meant as a limitation. For example, any other wide area network or intranet having email recipients and senders would be suitable for the present invention.

Email screening server 12 is also connected to the network 14. The email screening server 12 may operate on a wide variety of computers. A computer having memory, storage, and network connections as well as operating system software and software for executing email management functions.

Email sender 10 is also connected to network 14 and sends email in the typical fashion to recipient computer 16. Both the recipient computer 16 and the email sender 10 may be, a personal computer, such as an IBM PC, with an applications platform such as Windows™ or MacIntosh™, without limitation. The recipient computer 16 and email sender 10 include a processor, for example a Celeron 360 or a Pentium III, and memory for processing and storage.

In the present invention, recipient computer 16 has software to recognize when email is being received regardless of the source and redirecting that email over network 14 to screening server 12. Screening server 12 screens the email for any viruses and any passwords and performs additional functions for both recipient computer 16 and sending computer 10 as more fully described in Figure 2 (below).

1   Referring to Figure 2, the overall flow of processing of email is illustrated. As

2   noted above, recipient computer senses incoming email 20. Using software of the present

3   invention email is redirected to screening server 22. Screening server then performs a

4   scan of the redirected email for the presence of any virus 24. The screening server also

5   scans to determine if any password is present 26.

6   If a password is present indicating a higher importance to the particular email that

7   has been scanned, the email is sent, assuming there is no virus present, over the network

8   to go with any attachments to the recipient 28. Any such email that is screened and where

9   a password is determined to be present is reformatted and sent to the recipient with an

10   appropriate identifier so that the screening software resident on the recipient's computer

11   allows scanned email to be received and read at the recipient's computer.

12   If there is no password present 26, the system takes two actions.

1   The first action that is taken is that a notification is sent to the recipient that an email

2   comprising no password has been received and scanned. The recipient is informed of the sender

3   name, the date of transmission, the time, the subject, and any other pertinent information that can

4   be extracted from the email, but not any attachments that may be attached to the email 40. In

5   addition, a notification is sent to the sender 30 that its email has been received and that, in order

6   to convey it to the sender, a charge for such a service will be made.

7   The email sender is given the option to accept the charge 32. Is the email sender does not

8   wish to accept the charge the email is discarded 34 and it is not sent to the recipient. If however

9   the sender accepts the charge for the service of forwarding the email 32, the email is

10   subsequently sent with an appropriate identifier to the recipient 28 so that the software that is

11   resident on the recipient's computer knows that the software has been scanned and can be

12   accepted for reading.

13   If however after the sender is notified of the fact that email has been scanned but does not

14   have a password 40, the sender is also asked if, given the information concerning the sender,

15   time, subject matter, and other information, the recipient wants the email 38. If the recipient

16   does not want to receive the email, the screening server discards the email 36. If however the

17   recipient does wish to receive the email, the recipient is subsequently sent the email with the

18   appropriate ID 28 to overcome the screening software at the recipient computer 16.

19   A key aspect of the present invention is that a business model for the receipt and

20   screening of electronic mail at a nominal charge is established. The screening server receives the

21   email as redirected from a recipient computer. Each time that a non-passworded electronic mail

22   is determined by a sender to be worthy of a service charge, that service charge is made by the

9

1   screening server and shared between the screening server and the recipient. In this way, the

2   recipient is encouraged to receive email that has been screened, and further, the system enhances

3   the electronic mail environment over networks by ensuring that all email is appropriately

4   screened for virus content.

5   The system operates with conventional computer equipment. For example, the recipient

6   computer can simply be an IBM pc or compatible or any other workstation now readily available

7   to the public. The screening server can be a Sun Microsystems server or any other server capable

8   of receiving large volumes of email and screening such email for the presence of any virus. The

9   sending computer is also any computer that now exists that has the capability of sending

10   electronic mail from one point on a network to another.

11   A system for screening email and generating revenue from that email screening activity

12   has now been illustrated. It will be apparent to those skilled in the art that other embodiments of

13   the present invention are possible without departing from the scope of the invention as disclosed.

14   As noted above, the software located on the recipient computer has a number of flexible

15   functions associated with it. For example, the software can automatically screen for any names

16   or addresses which are designated by the recipient as desirable to receive. Any such addresses so

17   designated will not be redirected to the screening server. Further, any such address can also be

18   provided to the screening server so that the screening server itself will simply redirect any email

19   to the recipient without that email being screened.

20

21

22

1   We claim:

2   1. An email screening system comprising:

3   a recipient computer connected to a network;

4   an email screening server connected to the recipient computer over the network;

5   a sender computer; connected to the recipient computer and the email screening

6   computer over the network;

7   wherein said recipient computer further comprises instructions for forwarding all email

8   messages received to the email screening server; and

9   wherein the email screening server further comprises instructions for screening the email

10   for viruses and notifying the sender computer that the email will be forwarded to the recipient

11   computer for a fee.

12

13   2. The email screening system of claim 1 wherein the recipient computer further comprises

14   a password assigned to the recipient computer by the email screening computer.

15

16   3. The email screening system of claim2 wherein the instructions stored by said email

17   screening server further comprise instructions for holding all email messages without the

18   password.

19

20   4. The email screening system of claim 2 wherein the email screening server further

21   comprises instructions for alerting the recipient computer that an email message without

22   the password is being held by the email screening computer.

1

2   5. The email screening system of claim 4 wherein the instructions stored by the email

3   screening server further comprise instructions for charging the sender computer a fee to forward

4   said email message without the password to the recipient computer.

5

6   6. A method for detecting viruses in email and administrating email for a recipient

7   comprising:

8   an email screening server connected to a network assigning a password to

9   an email recipient connected to the network;

10   rerouting email received by the email recipient to the email screening server over

11   the network;

12   screening the email by the email screening server for viruses;

13   forwarding screened email to a recipient if the email possess a recipient password;

14   and

15   holding email at the email screening server when the email is

16   without the recipient password.

17

18   7. The method of claim 6 further comprising:

19   notifying the recipient that the email without the recipient password

20   is being held;

21   notifying the sender that the email without the recipient password

22   is being held; and

1

2   charging the sender a fee for sending the email without the recipient password.

3

4   8. The method of claim 7 further comprising:

5   providing the recipient with the option to receive the email without

6   the recipient password.

7   9.   The method of claim 7 further comprising sharing the fee charged to the sender

8   with the recipient when the recipient accepts the email without the recipient password.

9   10. A method of virus screening of email comprising:

10   re-routing email from a recipient to a scanning server over a network;

11   scanning the email for a virus;

12   notifying the sender of the email that the scanned email will be sent to the

13   recipient for a fee;

14   sending the scanned email to the recipient over the network if the fee is paid; and

15   sharing the fee with the recipient.

16   11.   The method of virus screening of email of claim 10 further comprising:

17   the scanning server establishing a password for the recipient;

18   the recipient notifying selected email senders of the password;

19   the scanning server scanning the email for the password;

20   the scanning server forwarding the email from the selected senders when the

21   email possesses the password; and

22   the scanning server making no charge to the selected e-mail sender.

1   12. The method of claim 10 further comprising automatically forwarding email when

2   said email message has an identification password.

3   13. The method of claim 10 further comprising:

4   sending a notification message to said sender computer

5   when an identification password is not detected; and

6   charging said sender a fee to send said email to said recipient.

7   14. The method of claim 13 further comprising:

8   sharing a portion of said fee with said recipient.

9   15. The method of claim 10 further comprising:

10   sending a notification message to said sender computer and said recipient

11   computer

12   when an identification password is not detected; and

13   providing a recipient with an option to pay for screening and sending

14   said email when said sender does not pay for screening and sending said

15   email.

16

1   Abstract of the Disclosure

2   A system and method for e-mail screening to prevent the spread of viruses and to

3   compensate users for viewing unsolicited e-mails. Users have all incoming e-mails

4   redirected to a e-mail screening site. When the user registers with the server of the

5   present invention, the user designates a password to the screening site and inform email

6   senders of the password. When email comes to the user, it is redirected to the server site.

7   IF a password is present in the e-mail it is sent directly back to the user. If there is no

8   password present, the email is scanned and the sender is notified that, for a fee, the email

9   can be forwarded to the user. If the sender pays the fee to the server site, the scanned e-

10   mail is forwarded and the fee is then shared with the user.

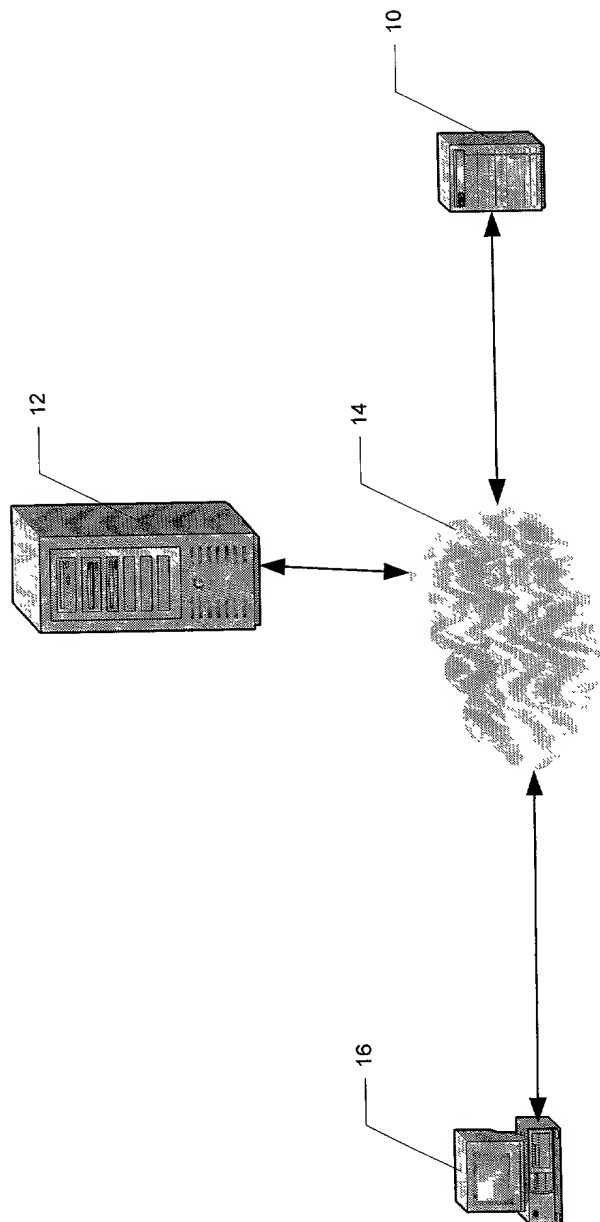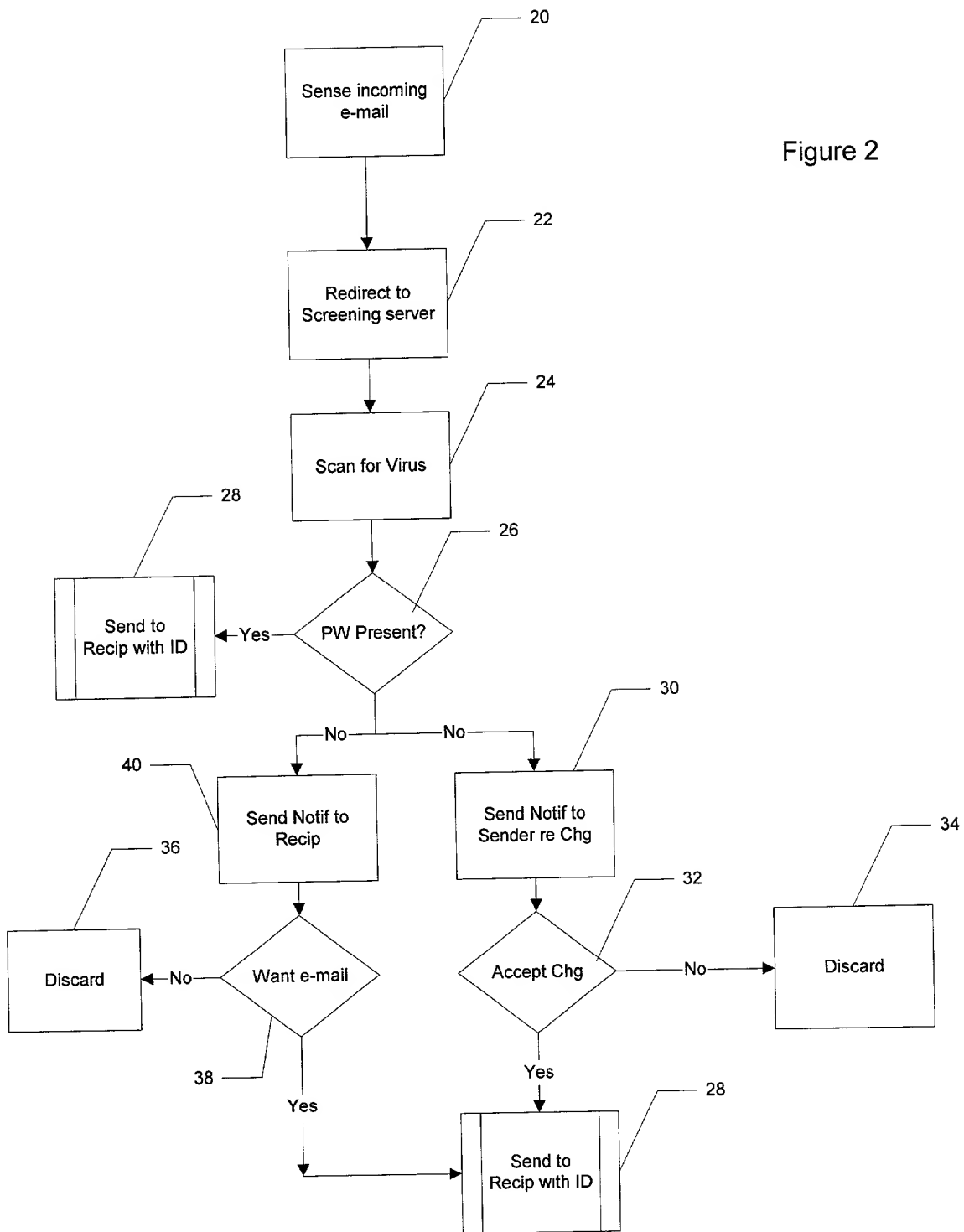15

10

12

14

16

Figure 1

Figure 2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Dale Burns and Theodore Palles

Serial No.: Not Yet Assigned   Group Art Unit:

Filed: HEREWITH   Examiner:

FOR: System and Method for Email Screening

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As below inventors, We hereby declare that:

Our residences, post office addresses and citizenship are as stated below next to our names.

We believe we are the original, joint and first inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled **System and Method for Email Screening**, the specification of which is attached hereto.

We hereby state that we have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

We hereby appoint the following attorney(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

<div align="center">

Jon L. Roberts
Registration No. 31,293
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</div>

We declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of inventor _____ Dale Burns _____

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Residence _____ Plano, Texas _____

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Full name of inventor _____ Theodore Palles _____

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